

SEQUENCE LISTING

<110> DAI, KEN-SHOW

<120> HUMAN ARL-RELATED GENE VARIANTS ASSOCIATED WITH CANCER

<130> U014798-3

<140> 10/653,681

<141> 2003-09-02

<160> 6

<170> PatentIn version 3.2

<210> 1

<211> 1090

<212> DNA

<213> ARTIFICIAL SEQUENCE

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<223> VARIANT OF HUMAN ALDOSE REDUCTASE-LIKE GENE

<220>

<221> CDS

<222> (70)..(333)

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1 5 10	
att gtg ggc ctg ggc act tgg aag tct cct ctc ggc aaa gtg aaa gaa	159
Ile Val Gly Leu Gly Thr Trp Lys Ser Pro Leu Gly Lys Val Lys Glu	
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gca gtg aag gtg gcc att gat gca gga tat cgg cac att gac tgt gcc	207
Ala Val Lys Val Ala Ile Asp Ala Gly Tyr Arg His Ile Asp Cys Ala	
35 40 45	
tat gtc tat cag aat gaa cat gaa gtg ggg gaa gcc atc caa gag aag	255
Tyr Val Tyr Gln Asn Glu His Glu Val Gly Glu Ala Ile Gln Glu Lys	
50 55 60	
atc caa gag aag gct gtg aag cgg gag gac ctg ttc atc gtc agc aag	303
Ile Gln Glu Lys Ala Val Lys Arg Glu Asp Leu Phe Ile Val Ser Lys	
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Leu Trp Pro Thr Ser Arg Ser Arg Ser Ser	
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<223> PEPTIDE ENCODED BY VARIANT OF HUMAN ALDOSE REDUCTASE-LIKE GENE

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Gly Leu Gly Thr Trp Lys Ser Pro Leu Gly Lys Val Lys Glu Ala Val
20 25 30

Lys Val Ala Ile Asp Ala Gly Tyr Arg His Ile Asp Cys Ala Tyr Val
35 40 45

Tyr Gln Asn Glu His Glu Val Gly Glu Ala Ile Gln Glu Lys Ile Gln
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Glu Lys Ala Val Lys Arg Glu Asp Leu Phe Ile Val Ser Lys Leu Trp

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70

75

80

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<212> DNA

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<220>

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gcaccaacc atg gcc acg ttt gtg gag ctc agt acc aaa gcc aag atg ccc      111
      Met Ala Thr Phe Val Glu Leu Ser Thr Lys Ala Lys Met Pro
        1             5             10

att gtg ggc ctg ggc act tgg aag tct cct ctc ggc aaa gtg aaa gaa      159
Ile Val Gly Leu Gly Thr Trp Lys Ser Pro Leu Gly Lys Val Lys Glu
15             20             25             30

gca gtg aag gtg gcc att gat gca gga tat cgg cac att gac tgt gcc      207
Ala Val Lys Val Ala Ile Asp Ala Gly Tyr Arg His Ile Asp Cys Ala
        35             40             45

tat gtc tat cag aat gaa cat gaa gtg ggg gaa gcc atc caa gag aag      255
Tyr Val Tyr Gln Asn Glu His Glu Val Gly Glu Ala Ile Gln Glu Lys
        50             55             60

atc caa gag aag gct gtg aag cgg gag gac ctg ttc atc gtc agc aag      303
Ile Gln Glu Lys Ala Val Lys Arg Glu Asp Leu Phe Ile Val Ser Lys
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Leu Trp Pro Thr Phe Phe Glu Arg Pro Leu Val Arg Lys Ala Phe Glu
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aag acc ctc aag gac ctg aag ctg agc tat ctg gac gtc tat ctt att      399
Lys Thr Leu Lys Asp Leu Lys Leu Ser Tyr Leu Asp Val Tyr Leu Ile
95             100             105             110

cac tgg cca cag gga ttc aag tct ggg gat gac ctt ttc ccc aaa gat      447
His Trp Pro Gln Gly Phe Lys Ser Gly Asp Asp Leu Phe Pro Lys Asp
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Glu Ala Met Glu Glu Leu Val Asp Glu Gly Leu Val Lys Ala Leu Gly	
145 150 155	
gtc tcc aat ttc agc cac ttc cag atc gag aag ctc ttg aac aaa cct	591
Val Ser Asn Phe Ser His Phe Gln Ile Glu Lys Leu Leu Asn Lys Pro	
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Gly Leu Lys Tyr Lys Pro Val Thr Asn Gln Val Glu Cys His Pro Tyr	
175 180 185 190	
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Leu Thr Gln Glu Lys Leu Ile Gln Tyr Cys His Ser Lys Gly Ile Thr	
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Val Thr Ala Tyr Ser Pro Leu Gly Ser Pro Asp Arg Pro Trp Ala Lys	
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cca gaa gac cct tcc ctg ctg gag gat ccc aag att aag gag att gct	783
Pro Glu Asp Pro Ser Leu Leu Glu Asp Pro Lys Ile Lys Glu Ile Ala	
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Ala Lys His Ser Pro Ser Leu	
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<223> PEPTIDE ENCODED BY VARIANT OF HUMAN ALDOSE REDUCTASE-LIKE GENE

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Gly Leu Gly Thr Trp Lys Ser Pro Leu Gly Lys Val Lys Glu Ala Val
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Lys Val Ala Ile Asp Ala Gly Tyr Arg His Ile Asp Cys Ala Tyr Val
35 40 45

Tyr Gln Asn Glu His Glu Val Gly Glu Ala Ile Gln Glu Lys Ile Gln
50 55 60

Glu Lys Ala Val Lys Arg Glu Asp Leu Phe Ile Val Ser Lys Leu Trp
65 70 75 80

Pro Thr Phe Phe Glu Arg Pro Leu Val Arg Lys Ala Phe Glu Lys Thr
85 90 95

Leu Lys Asp Leu Lys Leu Ser Tyr Leu Asp Val Tyr Leu Ile His Trp
100 105 110

Pro Gln Gly Phe Lys Ser Gly Asp Asp Leu Phe Pro Lys Asp Asp Lys
115 120 125

Gly Asn Ala Ile Gly Gly Lys Ala Thr Phe Leu Asp Ala Trp Glu Ala
130 135 140

Met Glu Glu Leu Val Asp Glu Gly Leu Val Lys Ala Leu Gly Val Ser
145 150 155 160

Asn Phe Ser His Phe Gln Ile Glu Lys Leu Leu Asn Lys Pro Gly Leu
165 170 175

Lys Tyr Lys Pro Val Thr Asn Gln Val Glu Cys His Pro Tyr Leu Thr
180 185 190

Gln Glu Lys Leu Ile Gln Tyr Cys His Ser Lys Gly Ile Thr Val Thr

195

200

205

Ala Tyr Ser Pro Leu Gly Ser Pro Asp Arg Pro Trp Ala Lys Pro Glu
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<212> DNA

<213> HOMO SAPIEN

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<223> HUMAN ARL GENE

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<212> PRT

<213> HOMO SAPIEN

<220>

<223> AMINO ACID SEQUENCE ENCODED BY HUMAN ARL GENE

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			20					25					30			
Lys	Val	Ala	Ile	Asp	Ala	Gly	Tyr	Arg	His	Ile	Asp	Cys	Ala	Tyr	Val	
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Tyr	Gln	Asn	Glu	His	Glu	Val	Gly	Glu	Ala	Ile	Gln	Glu	Lys	Ile	Gln	
	50					55					60					
Glu	Lys	Ala	Val	Lys	Arg	Glu	Asp	Leu	Phe	Ile	Val	Ser	Lys	Leu	Trp	
65					70					75					80	
Pro	Thr	Phe	Phe	Glu	Arg	Pro	Leu	Val	Arg	Lys	Ala	Phe	Glu	Lys	Thr	
				85					90					95		
Leu	Lys	Asp	Leu	Lys	Leu	Ser	Tyr	Leu	Asp	Val	Tyr	Leu	Ile	His	Trp	
			100					105					110			
Pro	Gln	Gly	Phe	Lys	Ser	Gly	Asp	Asp	Leu	Phe	Pro	Lys	Asp	Asp	Lys	
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Lys	Tyr	Lys	Pro	Val	Thr	Asn	Gln	Val	Glu	Cys	His	Pro	Tyr	Leu	Thr	
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Asp Pro Ser Leu Leu Glu Asp Pro Lys Ile Lys Glu Ile Ala Ala Lys
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His Lys Lys Thr Ala Ala Gln Val Leu Ile Arg Phe His Ile Gln Arg
245 250 255

Asn Val Ile Val Ile Pro Lys Ser Val Thr Pro Ala Arg Ile Val Glu
260 265 270

Asn Ile Gln Val Phe Asp Phe Lys Leu Ser Asp Glu Glu Met Ala Thr
275 280 285

Ile Leu Ser Phe Asn Arg Asn Trp Arg Ala Cys Asn Val Leu Gln Ser
290 295 300

Ser His Leu Glu Asp Tyr Pro Phe Asp Ala Glu Tyr
305 310 315